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**Social Collateral and consumer payment media  
during the economic crisis in Europe<sup>1</sup>**

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# **Social Collateral and consumer payment media during the economic crisis in Europe**

## **Abstract**

In this research paper we investigate the relationship between economic crises and the changes in levels of social collateral, as well as the indirect changes in the use of payment media from consumers as a result of the latter. The scene is Europe in 2015 and the Eurozone crisis involving countries mostly hit from the crisis: Greece, Cyprus and to a lesser extent Spain, versus less affected economies like Sweden and UK. We use and analyse questions focusing on social collateral, taken from a much broader research instrument - a questionnaire with 54 questions that have been used in a series of studies focusing in the use of payment media during 2015. From a total of 1003 gathered questionnaires a comparative analysis is performed through time and space focusing on three periods: before the start of the crisis in 2008, after that, and during the last 12 months; in terms of geographical dispersion, the aforementioned five countries are researched. Our empirical results provide some preliminary evidence indicating an heterogeneous behaviour among the five countries under investigation, as well as a clear change over time - partially explained by the impact of the crisis.

**Keywords:** Financial Crisis; Social Collateral; Households; Payment media; Europe;

JEL Classifications: **G01, A13, D10, H31, E4**

## **Social Collateral and consumer payment media during the economic crisis in Europe**

### **1. Introduction**

In the current study we research the link between economic crises and Social Collateral (Karlan et al. 2009) and how the increase/decrease of the latter affects the use of payment media during a financial crisis. We naturally expect that in the light of a crisis, societies should react in a positive way - this being more true for the immediate families, and as a result social collateral to increase (Walsh 1996). However it is unclear how that would be translated into means of lending/borrowing directly cash and other payment media like credit and debit cards. This is exactly the focus of this study.

Broadly speaking Social Collateral (family, friends, groups, etc) are expected to offer cash-in-hand, cash-alternatives (credit cards) or in-kind contribution (child-minding, accommodation) to ease out the poorest children/relatives during periods of crises and as such this could influence the use of specific media especially cash where we could be expecting a small increase at individual level. At aggregate level however, that should not be expected to be evident, as the cash and other media are lent from one member of the society (the sum) to another, so although the individual parts are changing... the overall sum remains the same.

We want first to focus on temporal differences and thus we focus on three distinct periods of time: a) before 2008 and the start of the latest economic crisis, globally and more specific into Europe, b) after 2008 and c) more recently during the last 12 months - counting backwards from the Autumn of 2015 when this research has been completed. As the collected data will not be based on hard evidence i.e. receipts of *transactions*, rather than *recollections* of people. We are practically would be presenting here evidence of the *perceptions* of the people participating in the research; there is however merit from doing so as we walk here in a very under-researched topic.

Moreover we want to focus on regional differences, and in order to achieve a reasonable contrast we are researching countries at the centre of Eurozone crisis: Greece, Cyprus, versus far more stable economies in the likes Sweden and UK, with Spain sitting somewhere in the middle.

Thus this is the main motivation for the study and so the main focus: *as far as Social collateral and the respective media payment consumer choice is concerned, is there an heterogeneous behaviour through time and space in Europe?*

To build further on this motivation we were enthused to see that this issue is quite topical; as it has been recently (2014) picked up in an international comparative study by the Boston Fed measuring consumers' use of cash via surveys from seven countries: Canada (2009), Australia (2010), Austria, France, Germany, and Netherlands (2011), and the United States (2012) resulting in highlighting cross-country differences in respect of cash use.

Following a similar approach we developed a single survey instrument and run it simultaneously across five countries - clearly with connected economies in the Eurozone system. Of the 54 questions-long questionnaire run in the aforementioned five countries we use and analyse in this paper seven (7) of them that are focusing on socio-economic phenomena like Social Collateral - questions [31-37] (Litsiou & Nikolopoulos, 2019a). Given the breadth and the geographical extent of the research the questionnaire was original constructed in the medium of English and translated (and back-translated) in Greek and Spanish and was delivered both hand-to-hand as a printout as well as online via Survey monkey. The two parts work well together and we think some insights for the reader are drawn as well further research needs are stimulated.

The remaining of the paper is as follows: section two is looking for studies in the literature focusing in social collateral broadly and any links with consumer behavior specifically, especially in term of payment media used the use of cash during a period of crisis. Section three provides our three research questions and describes our methodological approach. Section four discusses the most important findings from our survey and the paper finishes with a section containing the main conclusions, limitations and a roadmap for further research.

## **2. Background Literature: Social Collateral during crises.**

A household is usually defined as either someone living alone or a group of people living together with mutual housekeeping arrangements, but are not necessarily kin (Allan and Crow, 2001). Family, however is a totally different beast that is associated with the notion of kinship and resilience (Walsh, 1996), a connection through biological or marital relationships (Finch and Mason, 1993). Research shows that kinship very much matters to everyday financial support networks (Finch and Mason, 1993)

From a recent survey from Heath and Calvert (2013), the results have shown that most participants had received regular and adhoc material and financial support from parents and relatives. Furthermore, younger generations in UK can't practically buy a house given the housing bubble and so still get financial support from their families.

Borrowing from family members can lead to '*the co-existence of a sense of both gratitude and discomfort*' (Heath and Calvert, 2013, 1121). Indeed, this can lead to tensions (Harker and Martin, 2012, 769). Such research on sharing in families helps to remind that people are more than just financial subjects; they are mothers, fathers, brothers, children, etc and these are far more complicated relationships where when monies come into the game -are becoming even more complex...

Udry (1994) found that the loans in the areas in northern Nigeria were surveyed are quite informal. Lenders and borrowers know each other well and usually these transactions are made between neighbours or relatives. Households borrow more when they suffer an adverse shock and they lend more when they are favoured with a positive shock - this being one of the main findings in from Udry.

The family is, as Bradley (1986, 99) describes, '*an emotional as well as an economic support group*', and argues that financial difficulties within the family often require a combined and synergetic response from all the family members working together as a 'family project' so as to ensure financial survival.

On a more theoretical note Karlan et al. ( 2008) discusses the links between trust and Social Collateral. The model developed in the paper prescribes that network connections between individuals can be used in order to secure direct and informal borrowing as social collateral.

### **3. Research Questions and Methodology**

Following our review of the literature in the previous section we do find very few studies on the impact of economic crises on social collateral and any link with the use of payment media in specific, and as such our research questions are formed as follows:

**R1:** *Is Social Collateral - as manifested by lending cash, cards and other payment instruments - more evident during periods of crisis?*



**R2:** *Is Social collateral - as manifested by in-kind contributions like offering services for free - more evident during periods of crisis?*

Furthermore given the demographic, cultural and technological differences among countries, respective differences in the use of cash are expected to be apparent, so:

**R3:** *Is the strength of Social collateral varying across different regions/countries*

### **3.1. Methodology**

Given the lack of publicly available data in EU on levels of social collateral and respective impact in payment media choice, we think there was scope for an inductive and empirical methodological approach. This is the same approach followed: a) in the Federal Reserve Bank of Boston and the research team in the Consumer Payments Research Centre (<http://www.bostonfed.org/economic/cprc/>) where for the latest publications from data in 2010 and 2009 and 2008 see Foster et al. (2011, 2013, 2010), and b) in the Reserve Bank of Australia (<http://www.rba.gov.au/publications/>) in studies for 2007 (Emery et. al. 2008), 2010 (Bagnall et al. 2010) and 2013 (Ossolinski et al., 2014).

So in all these studies a survey-based approach was followed and thus we decided to follow the same route. The questionnaire we used is discussed in detail in Litsiou & Nikolopoulos (2019a) and we employ for this specific research seven questions from that instrument. The questionnaire was piloted in November 2014 in a convenience sample in England and run in all five countries from spring till autumn of 2015.

The questionnaire contains 54 questions focusing on the following topics: Demographics 1-7, Mobile Phone use 8-10, Payment Media used 11-26, Financial Distress 27-30, Social Collateral 31-37, Social Media 38-50 and Collaborative Commons 51-54.

The questions in respect of the social collateral are detailed hereafter in Table 1 and refer to the respective questions 31-37 of the original questionnaire (here enumerated as I-VII).

<b>I.</b> Did any friend/family member helped you through offering in-kind support (babysitting, overnight or more permanent accommodation, etc)?
<b>II.</b> Did any friend/family member helped you through lending you some cash?
<b>III.</b> Did any friend/family member helped you through lending you his/her credit card?
<b>IV.</b> Have you been offered free of charge legal advice, family support (counselling, speech therapy, etc.) from city/county council citizens advice bureau?
<b>V.</b> Have you or any member of your family been offered free of charge tuition?
<b>VI.</b> Have you been offered any free of charge activities (i.e. out of school activities, gymnastics, dieting clubs, social clubs)?
<b>VII.</b> Have you been offered free of charge childcare (i.e. nursery, childminding)?

**Table 1.** Survey questions on social Collateral

We asked retrospective questions for the three latter parts of the questionnaire in order to gain perspective on changes in attitudes and behaviour over time. Three different periods of time selected; what happens in the last 12 months (counting backwards from autumn 2015), what has happened the last 7 years (after 2008 and the start of the economic crisis) and, what happened before 2008 and the start of the economic crisis. In total 1003

questionnaires were collected from the five countries and the breakdown among five main collector groups is presented in table 2 . The last part of the survey in UK has not concluded yet (expected December 2015) and as such the 80+ questionnaires collected so far have not been included in our analysis. Demographics for the sample in terms of age, income, education and other background information are presented in detail in Litsiou & Nikolopoulos (2019a).

In that same study also evidence of financial distress among the sample subjects is presented -especially in Greece and Cyprus. A very significant 25% of respondents (or family members of) in Greece and Cyprus lost their jobs in the last 12 months, and another 20% missed a mortgage payment contrasting a much lower percentage in Spain and even less in Sweden.

		Sector					Total
		Academics	Health sector	Professionals	Students	Friends & Family	
Country	Greece	11	219	277	75	110	<b>692</b>
	Cyprus	6	28	59	0	5	<b>98</b>
	Spain	43	5	44	33	0	<b>125</b>
	Sweden	27	11	42	8	0	<b>88</b>
Total		87	263	422	116	115	<b>1003</b>

**Table 2.** Questionnaire responses in 4 countries and 5 groups.

#### 4. Results and Discussion

Our first research question is about lending cash or any other payment instrument as a gesture of social collateral

**R1:** *Is Social Collateral - as manifested by lending cash, cards and other payment instruments - more evident during periods of crisis?*

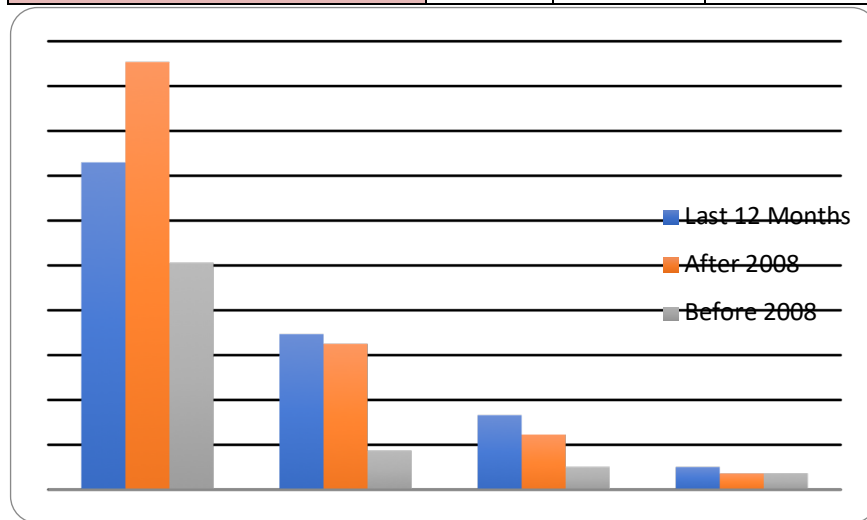
For this question to be answered we collected evidence through questions II and III in the questionnaire:

**Question II:** Did any friend/family member help you through lending you some cash?

Figures show that, the need for cash increased after 2008 and the global financial crisis from 1.7% to 6.5% of those who said that they borrow few times after 2008 with another 6.9% saying that they borrowed the last 12 months few times as well. People that borrowed cash once or twice after 2008 reached the level of 19.1%; this proportion shows that almost one out of five participants asked her/his social circle to lend her/him cash. Households borrow more when they suffer an adverse shock and they lend more when they are favoured with a positive shock (one of the main findings in Udry, 1994).

The monthly need to get some money from friends or from a member of family increased from 1.0% to 3.3% in the last 12 months. Another 2.5% said that they asked for cash We are not able to know the amount of money they borrowed, as we haven't included this question to our survey.

Greece	Last 12 Months	After 2008	Before 2008
Once or Twice	14.6%	19.1%	10.1%
About Five times	6.9%	6.5%	1.7%
Every Month	3.3%	2.5%	1.0%
Weekly	1.0%	0.7%	0.7%

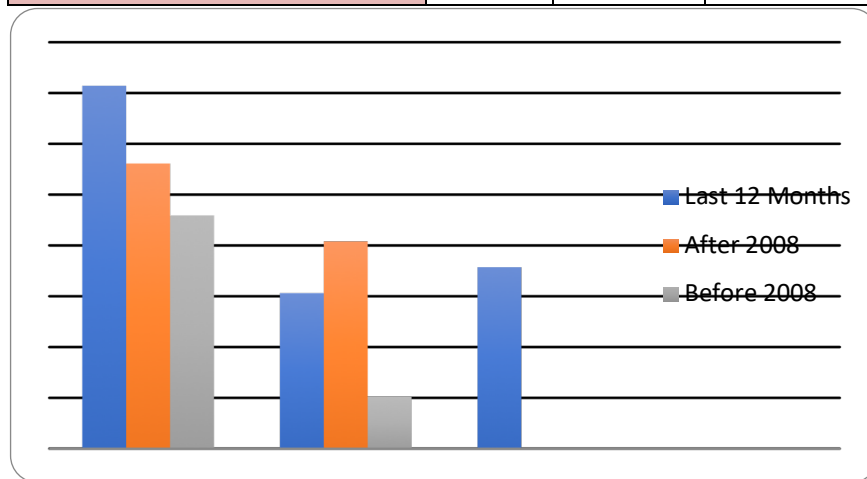


**Figure 1.** Greece - Lending Cash.

Similar results came out from our survey in Cyprus. None of participants had asked for cash any friend or a member of her/his family before 2008 (on a weekly or monthly basis) and the financial crisis shows the welfare of the country at that stage. However, this proportion has nothing to do with 7.1% of respondents said that they asked for cash every month.

Another 8.2% said that they borrowed cash about five times after 2008 with only 2.0% stating that they did so before 2008. The number of those that borrowed cash just once or twice increased almost 5% the last 12 months.

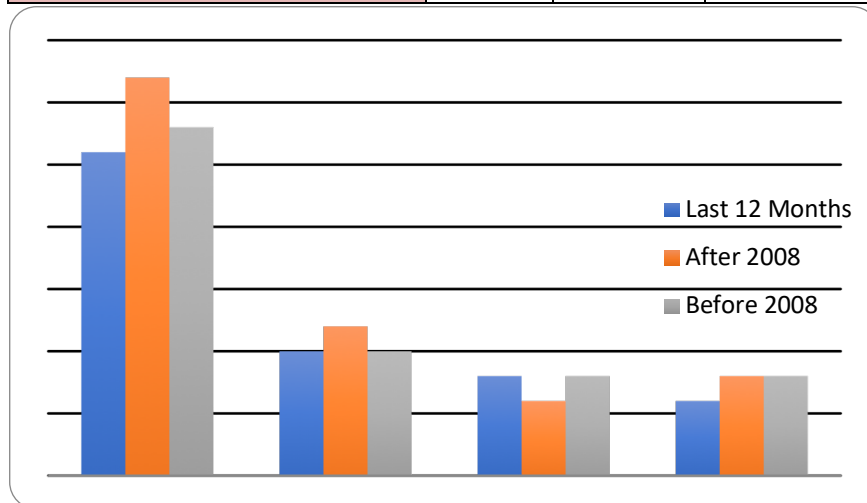
<b>Cyprus</b>	<b>Last 12 Months</b>	<b>After 2008</b>	<b>Before 2008</b>
Once or Twice	14.3%	11.2%	9.2%
About Five times	6.1%	8.2%	2.0%
Every Month	7.1%	0.0%	0.0%
Weekly	0.0%	0.0%	0.0%



**Figure 2.** Cyprus - Lending Cash.

From the other side of the bridge... is Spain where statistics shows that participant haven't been affected as far as the borrowing-lending relationship is concerned. There are no significant changes in the statistics in a regular based cash supply. A small change has been presented in the following graph, for those who borrowed cash before 2008 11.2%, those who borrowed after 2008 12.8% and those 10.4% who stated they got money from friends/family the last 12 months. The later proportion is even less than the equivalent of before the recession.

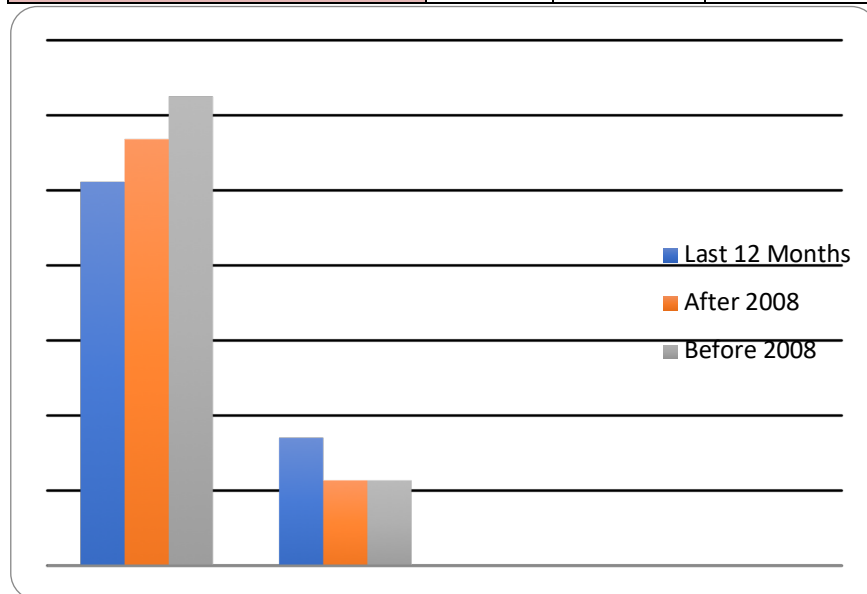
Spain	Last 12 Months	After 2008	Before 2008
Once or Twice	10.4%	12.8%	11.2%
About Five times	4.0%	4.8%	4.0%
Every Month	3.2%	2.4%	3.2%
Weekly	2.4%	3.2%	3.2%



**Figure 3.** Spain - Lending Cash.

The following graph shows that participants from Sweden haven't been asked to get money from their families/friends in a frequent base and even those who borrowed the last 12 months about five times increased only by 0.9%. It is quite interesting to see that the proportion of those who borrowed cash once or twice decreasing as the time passes.

Sweden	Last 12 Months	After 2008	Before 2008
Once or Twice	10.2%	11.4%	12.5%
About Five times	3.4%	2.3%	2.3%
Every Month	0.0%	0.0%	0.0%
Weekly	0.0%	0.0%	0.0%



**Figure 4.** Sweden - Lending Cash.

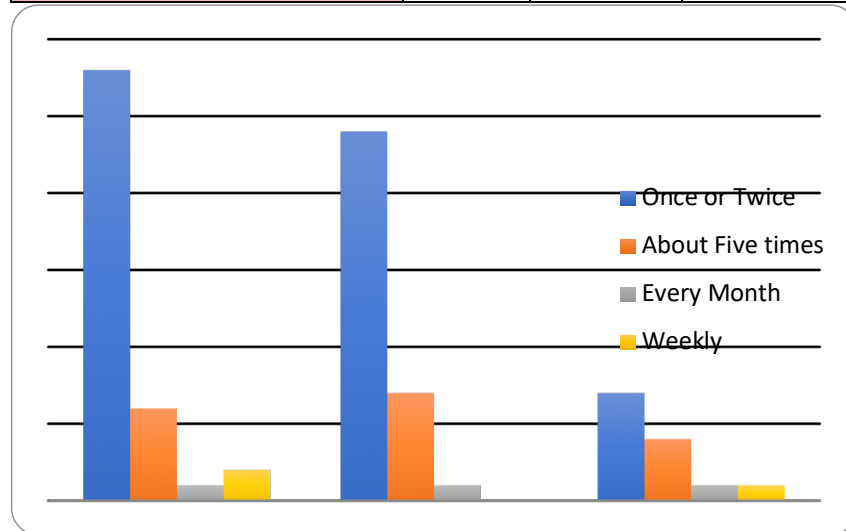


Further insight was received through the analysis of the next question on Credit cards. It has to be noted that the questions were focusing on either cash or credit cards as those both are mounded by the amount you lend or the card credit limit. It would make no sense to lend a debit card as that would mean unrestricted access to your account by...not you!

**Question III:** Did any friend/family member help you through lending you his/her credit card?

The results on this question provided evidence that out of the countries took place in our research, only in Greece people lend their credit card to a friend or to a member of their family under circumstances such as during a period of financial difficulties. Before 2008 and the recession only 7 participants said that they borrowed a credit card from a friend/family once or twice. This number went up to 24 after the financial crisis has started and even to a higher sum (28 responses) the last 12 months. The figures shows that people who borrowed a credit card about five times before 2008 were 4, increased to 7 after 2008 and went down to 6 the last 12 months. All these are very small percentages given we had more than 600 respondents from Greece.

Greece	Last 12 Months	After 2008	Before 2008
Once or Twice	28	24	7
About Five times	6	7	4
Every Month	1	1	1
Weekly	2	0	1



**Figure 5.** Greece - Lending Credit Card.

This concludes the evidence for the first R1 and the conclusion would be that there is sufficient evidence to suggest that social collateral has increased especially in the form of lending cash rather than any other payment medium.

This brings the discussion to the next question:

**R2:** *Is Social collateral - as manifested by in-kind contributions like offering services for free - more evident during periods of crisis?*

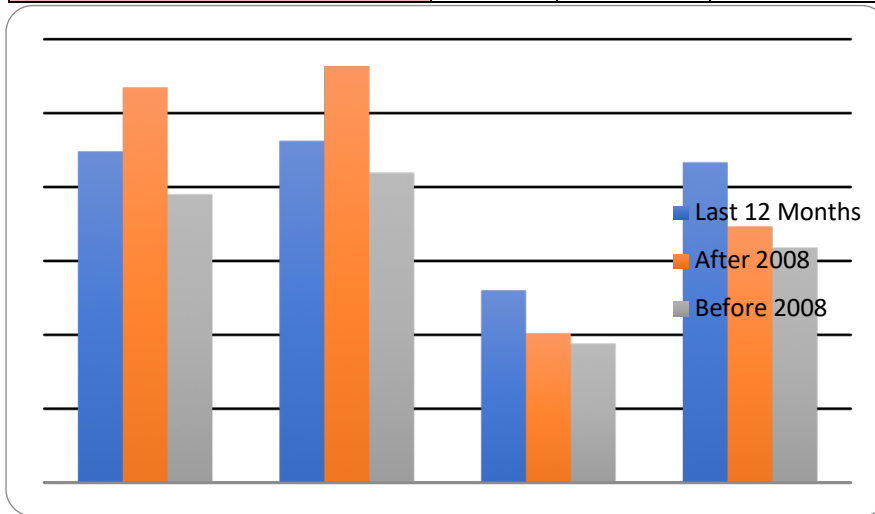
Evidence for this quest is collected through questions 1,4,5,6 and 7.

**Question I:** Did any friend/family member help you through offering in-kind support (baby-sitting, overnight or more permanent accommodation, etc.)?

The results on this question shows that there are no differences from geographically point of view but definitely throughout the time. For every country that have been taken part in the survey, social collateral has been increased after the 2008 and the start of financial crisis.

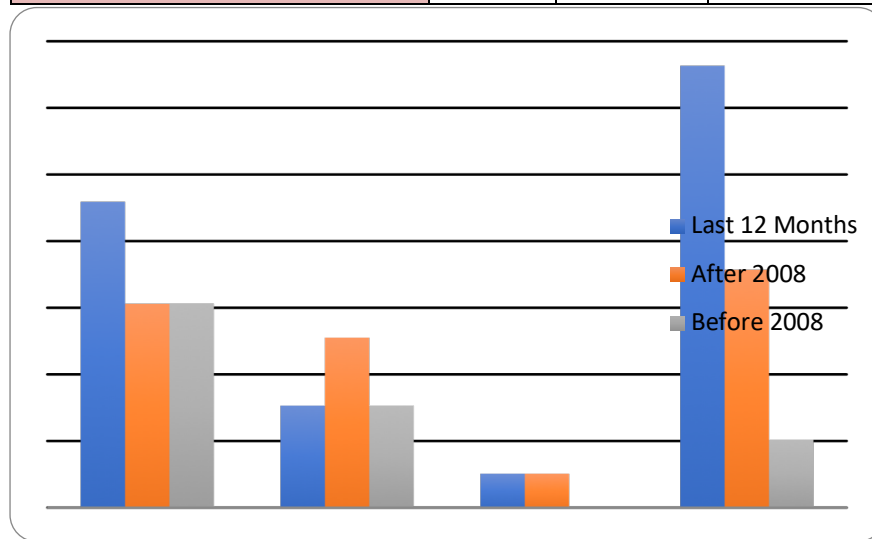
For south European countries, especially for those that hit most by the crisis, Greece and Cyprus, the need for in kind support is more evident and changed dramatically throughout the time. In Greece the need for in kind support in a weekly basis is more important than previous years, when the ad hoc support like once or few time in a year in kind went up after 2008 but started decreasing the last 12 months. This might be the case that either those who needed support moved to the more frequent pattern or they stopped need same support recently. Furthermore, in Cyprus after the big boom of 2010 in kind support increased from 2% before 2008 up to 7,1% after 2008 and even higher 13,3% the last 12 months. Additionally the frequency of less often than a weekly basis has increased as well.

<b>Greece</b>	Last 12 Months	After 2008	Before 2008
Once or Twice	4.5%	5.3%	3.9%
About Five times	4.6%	5.6%	4.2%
Every Month	2.6%	2.0%	1.9%
Weekly	4.3%	3.5%	3.2%



**Figure 6.** Greece, in-kind support.

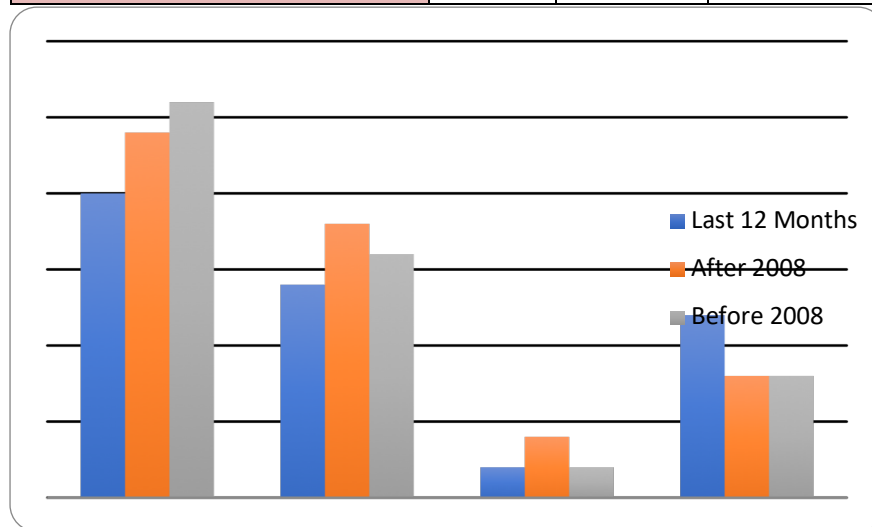
Cyprus	Last 12 Months	After 2008	Before 2008
Once or Twice	9.2%	6.1%	6.1%
About Five times	3.1%	5.1%	3.1%
Every Month	1.0%	1.0%	0.0%
Weekly	13.3%	7.1%	2.0%



**Figure 7.** Cyprus, in-kind support.

What seems to be more noticeable in Spain, it's the need for in kind support more frequently; the weekly need for support has increased from 3,2% to 4.8% the last 12 months. However, the support needed less often, once or twice has decreased not only the last 12 months but since 2008 as well. Once again, this proportion either might have moved from less often frequent need to more often or my interpretation is that more participants were in need of in kind support.

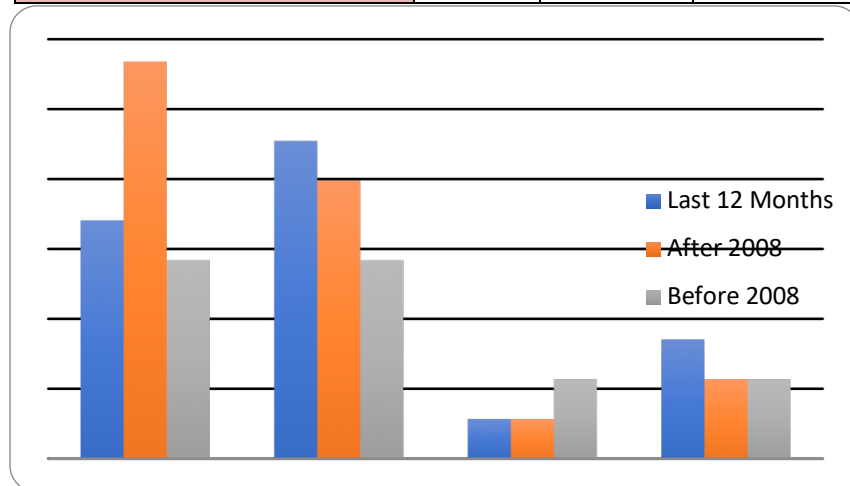
Spain	Last 12 Months	After 2008	Before 2008
Once or Twice	8.0%	9.6%	10.4%
About Five times	5.6%	7.2%	6.4%
Every Month	0.8%	1.6%	0.8%
Weekly	4.8%	3.2%	3.2%



**Figure 8.** Spain, in-kind support.

Social collateral does have a significant role during a financial crisis even in countries that its economy is stronger and more developed. In Sweden we ‘ve seen that 11,4% of the participants in our survey said that they got in kind support once or twice from friends and family since 2008 and the last recession, with 5,7% asked and got similar support before 2008. Additionally, 9.1% got in kind support about five times the last 12 months, much higher than those before 2008 (5.7%).

Sweden	Last 12 Months	After 2008	Before 2008
Once or Twice	6.8%	11.4%	5.7%
About Five times	9.1%	8.0%	5.7%
Every Month	1.1%	1.1%	2.3%
Weekly	3.4%	2.3%	2.3%



**Figure 9.** Sweden, in-kind support.

However it might be interesting to consider how family arrangements work in countries in northern Europe; they differ from those in south. The cultural ethics, the lifestyle and the views about family and responsibilities in it vary a lot.

Apart of that, another thing that might have played significant role in that is as Finch and Mason (1993) put it ... people are more likely to accord responsibility to relatives when the assistance needed is fairly limited – in terms of time, effort or skill.

The next questions IV, V, VI and VII is about other in-kind support types:

**Question IV:** Have you been offered free of charge legal advice, family support (counselling, speech therapy, etc.) from city/county council citizens advice bureau?

In a series of questions have been included in our survey we aimed to give more light to social collateral as far as consumer's payment behaviour concern during an economic crisis. We asked either if participants to the survey have been used/needed the social welfare in a way that otherwise they should have paid for the same services.

Once again, from a broader point of view in the part of the social collateral in communities, Greece is the one and only country that participants have experienced some changes the last years after the start of the global crisis in 2008.



To give some figures of what have just said, the following graph shows that before 2008 17 people have been offered once or twice free of charge either legal advice or other kind of family support such as counselling or speech therapy from a council citizens bureau, by reaching the number of 25 after 2008. Responses doubled from 4 to 9 for those who seek for a similar service about five times after the start of the recession.

Greece	Last 12 Months	After 2008	Before 2008
Once or Twice	20	25	17
About Five times	7	9	4
Every Month	0	0	0
Weekly	1	1	3

**Table 3.** Greece, further in-kind support.

**Question V:** Have you or any member of your family been offered free of charge tuition?

In the same way participants from Greece who have been offered free of charge tuition since 2008 and onward at least once increased from 17 to 20. Have been given some examples of the role of social collateral to different services in a specific county raised a question if this is a cultural influence or it is the case how communities work under specific circumstance such as a financial crisis.

Greece	Last 12 Months	After 2008	Before 2008
Once or Twice	20	8	7
About Five times	0	5	2
Every Month	4	4	2
Weekly	7	6	3

**Table 4.** Greece, further in-kind support (free tuition).

**Question VI:** Have you been offered any free of charge activities (i.e. out of school activities, gymnastics, dieting clubs, social clubs)?

As previously, the data from the only country that give some idea what is happening during an economic crisis is Greece. From those they have been offered activities free of charge once or twice, 24 said that they did so before 2008, another 30 after the start of the crisis and 41 participants said the last 12 months. 14 persons have been offered free of charge activities about five times before 2008 and 22 after that. For those who have been offered this service more frequently, the figure is as follows: in a monthly basis 5 said before 2008, 13 after and 7 in the last 12 months; in a weekly basis 19 before 2008, 13 after 2008 and 17 the last 12 months.

	Last 12 Months	After 2008	Before 2008
Once or Twice	41	30	24
About Five times	22	22	14
Every Month	7	13	5
Weekly	17	13	19

**Table 5.** Greece, in-kind support (activities).

**Question VII.** Have you been offered free of charge childcare (i.e. nursery, childminding)?

As far as this last question is concerned we received very few answers; this was not expected as in countries like Greece and Cyprus it is very common for grandparents to provide babysitting and child-minding for their grandchildren. Our only speculation here is that respondents meant to be answering as if this child-minding free option was offered by a nursery or any other private organization, and as such would be uncommon to be happening.

This concludes the evidence for the second R2 and the conclusion would be that there is sufficient evidence to suggest that in-kind social collateral has increased substantially during the period of economic crisis.

On the final research question,

**R3:** *Is the strength of Social collateral varying across different regions/countries*

given all the evidence provided in this section we conclude that we have substantial evidence to suggest that social collateral has increased at different pace among the countries under research: in Greece and Cyprus social collateral was more evident than Spain and far more than Sweden. This result is in line with the respective literature in social sciences re the social structures in the respective countries.

## **5. Conclusions, limitations and further research**

Starting by noting the obvious, that we literally observed consumers' perception of received direct and in-kind social collateral over a period of time. Having that said, our main findings can be summarized as follows:

- there is some evidence of social collateral as manifested by lending cash and credit cards
- there is some evidence of social collateral as manifested by offering in-kind support
- the evidence is much stronger in countries mostly hit by the crisis - Greece and Cyprus, thus there are regional differences

How that links to consumers behavior in payment media and respective choice of instruments? This remain unclear as: on the one hand cash and payment media have been lent from one individual to another - as part of the increasing social collateral due to the crisis - but does this mean more people do use of those media?

Not necessarily as the one who lends cash does not have all that cash to spend any more so as to spend it him/her self ; and if it is a card cannot spend anything on it. Intuition suggests more spending would happen anyway as the lender would still keep his/her lifestyle and the borrower will now have access to something that would not have access to without the social collateral; but this is only a speculation and a hypothesis remain to be confirmed in a follow up study...

As in any other survey-based study, this research is prone to criticism re the achieved statistical significance or the generalization of the findings in general given that all is based on a sample. This however should not act as a barrier to such research as it comes with many valuable insights. Having that said, and acknowledging the limitations of our study, we believe we found enough evidence to answer our three research questions.

For further research there is obviously need for more studies on cross-country differences in social collateral and the impact in the respective use of payment media where researchers would control for demographic differences and technological innovation in the payments ecosystems; also a more systematic sampling approach like the one followed from Boston Fed could improve the quality of the results at a significant cost though.

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